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IBM CORPORATION (R/HF) C/O ROBERT H. FRANTZ P. O. BOX 23324 OKLAHOMA CITY, OK 73123			EXAMINER LOVEL, KIMBERLY M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/809,583

Applicant(s)

BELL ET AL.

Examiner

KIMBERLY LOVEL

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 12, 13 and 20-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 12, 13 and 20-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the Amendment filed 14 July 2009.
2. Claims 8, 12, 13 and 20-34 are currently pending and claims 1-7, 9-11 and 14-19 are canceled. In the Amendment filed 14 July 2009, claims 8, 20 and 23 are amended and claims 29-34 are new. This action is made Final.
3. The prior art rejections of the claims have been maintained.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8, 12, 13 and 20-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 8, 20 and 23 recite the limitation "responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol" and "returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is

eliminated or avoided.” The examiner fails to find support within the specification for this limitation in application with the other claimed limitations. Since the dependent claims fail to overcome the rejections of the independent claims, claims 9-13, 21, 22 and 24-34 are rejected on the same grounds.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 8, 12, 13 and 20-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2002/0147857 to Sanchez, II et al (hereafter Sanchez) in view of US PGPub 2008/0086402 to Patel et al (hereafter Patel) in view of US PGPub 2003/0120502 to Robb et al (hereafter Robb).**

Referring to claim 8, Sanchez discloses a method comprising:

providing at least one declaration for a directory attribute (see [0050]);

receiving a directory protocol request for access to one or more attribute values from said associated directory structure (see [0056]);

invoking at least one Real-Time Attribute Processor (RTAP) selector from a plurality of attribute processor according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

returning to a requester said attribute value [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detecting in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure. Patel discloses wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detecting in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an attribute value from a real-time source external to said directory structure (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to so in order to introduce the concept of providing customer personalization in real-time to Sanchez which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

The combination of Sanchez/Patel (hereafter Sanchez/Patel) fails to explicitly disclose the further limitations of responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided. Robb discloses directory services, including the further limitations of responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided [dynamic content verses static content] (see [0074] and [0076]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize steps of Robb for reformatting and retrieving the attribute value in real-time with the steps of Sanchez/Patel. One would have been motivated to do so in order to make the system compatible with a plurality of resources and applications and also to reduce the amount of storage required.

Referring to claim 12, Sanchez/Patel/Robb discloses the method as set forth in claim 8 wherein said detecting comprises parsing a request comprises parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

Referring to claim 13, Sanchez/Patel/Robb discloses the method as set forth in claim 8 wherein said returning comprises returning said value according to a Lightweight Directory Access Protocol (Sanchez: see [0008]).

Referring to claim 20, Sanchez discloses a computer readable memory comprising: a computer readable memory suitable for encoding computer programs; and one or more computer programs encoded by said computer readable memory (see Fig 1) and configured to:

provide at least one declaration for a directory attribute (see [0050]);

receive a directory protocol request for access to one or more attribute values from said associated directory structure (see [0056]);

invoke at least one Real-Time Attribute Processor (RTAP) selector from a plurality of attribute processor according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

return to a requester said attribute value [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detect in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolve a real-time value by obtaining an attribute value from a real-time source external to said directory structure. Patel discloses wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detect in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an attribute value from a real-time source external to said directory structure (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to so in order to introduce the concept of providing customer personalization in real-time to Sanchez which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

The combination of Sanchez/Patel (hereafter Sanchez/Patel) fails to explicitly disclose the further limitations of responsive to said resolving, converting said obtained

attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided. Robb discloses directory services, including the further limitations of responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided [dynamic content verses static content] (see [0074] and [0076]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize steps of Robb for reformatting and retrieving the attribute value in real-time with the steps of Sanchez/Patel. One would have been motivated to do so in order to make the system compatible with a plurality of resources and applications and also to reduce the amount of storage required.

Referring to claim 21, Sanchez/Patel/Robb discloses the computer readable memory as set forth in claim 20 wherein said detecting comprises parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

Referring to claim 22, Sanchez/Patel/Robb discloses the computer readable memory as set forth in claim 20 wherein said returning comprises returning said value according to a Lightweight Directory Access Protocol (Sanchez: see [0008]).

Referring to claim 23, Sanchez discloses a system comprising hardware means for performing a logical process, wherein said logical process comprises:

providing at least one declaration for a directory attribute (see [0050]);

receiving a directory protocol request for access to one or more attribute values from said associated directory structure (see [0056]);

invoking at least one Real-Time Attribute Processor (RTAP) selector from a plurality of attribute processor according to a predetermined selection schema and to invoke said selected RTAP (see [0030], lines 7-15); and

returning to a requester said attribute value [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the further limitations wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detecting in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure. Patel discloses wherein the attributes are to be handled as a real-time attribute associated with but external to a directory structure; detecting in said received request a request to access an attributed as a real-time external attribute; and responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source

external to said directory structure [attributes fetched in real-time] and being in a format incompatible with a directory access return format and obtaining an attribute value from a real-time source external to said directory structure (see [0074] and [1056]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize concept of fetching dynamic attributes in real-time as disclosed by Patel with the logical device of Sanchez. One would have been motivated to so in order to introduce the concept of providing customer personalization in real-time to Sanchez which increases accuracy of the dynamic data and decreases the resources required to poll and push dynamic data to the LDAP (Patel: see [0005]).

The combination of Sanchez/Patel (hereafter Sanchez/Patel) fails to explicitly disclose the further limitations of responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided. Robb discloses directory services, including the further limitations of responsive to said resolving, converting said obtained attribute value from a real-time attribute to a static attribute, wherein said real-time attribute is incompatible with said directory access protocol, and wherein said static attribute is compatible with said directory access protocol and returning to a requester said converted real-time attribute directly in said directory access protocol, wherein storing

and updating of said converted real-time attribute value in said directory structure is eliminated or avoided [dynamic content verses static content] (see [0074] and [0076]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize steps of Robb for reformatting and retrieving the attribute value in real-time with the steps of Sanchez/Patel. One would have been motivated to do so in order to make the system compatible with a plurality of resources and applications and also to reduce the amount of storage required.

Referring to claim 24, Sanchez/Patel/Robb discloses the system as set forth in Claim 23 wherein said hardware means comprises at least in part a microprocessor (Sanchez: see Fig 1).

Referring to claim 25, Sanchez/Patel/Robb discloses the system as set forth in Claim 23 wherein said hardware means comprises at least in part an electronic circuit (Sanchez: see Fig 1).

Referring to claim 26, Sanchez/Patel/Robb discloses the system as set forth in Claim 25 wherein said electronic circuit is selected from a group comprising an application specific integrated circuit, and a programmable logic circuit (see Fig 1).

Referring to claim 27, Sanchez/Patel/Robb discloses the system as set forth in claim 23 wherein said detecting comprises parsing a request comprises parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

Referring to claim 28, Sanchez/Patel/Robb discloses the method as set forth in claim 23 wherein said returning comprises returning said value according to a Lightweight Directory Access Protocol (Sanchez: see [0008]).

Referring to claim 29, Sanchez/Patel/Robb discloses the method of Claim 8 wherein said resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure further comprises selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking said selected real-time attribute processor, and wherein said resolving is performed by said invoked real-time attribute processor (Sanchez: see [0030], lines 7-15).

Referring to claims 31 and 33, the claims are rejected on the same grounds as claim 29.

Referring to claim 30, Sanchez/Patel/Robb discloses the method of Claim 29 wherein said predetermined selection schema comprises a schema employing a variation of a name of said requested directory attribute to identify a real-time attribute processor for selection (Sanchez: see [0030], lines 7-15).

Referring to claims 32 and 34, the claims are rejected on the same grounds as claim 30.

Response to Arguments

8. Applicant's arguments filed 14 July 2009 have been fully considered but they are not persuasive.

9. Referring to Applicant's arguments on page 8 of the Remarks, the Applicant states the following:

With respect to the rejections regarding whether or not the Applicant(s) possessed the invention aspects "responsive to said resolving, converting said obtained attribute value from a first value format to a second value format, wherein said first value format is incompatible with said directory access protocol, and wherein said second value format is compatible with said directory access protocol", we respectfully disagree. Compatibility Conversion. Please note that in our ¶0011 (as numbered in the pre-grant publication), we introduced the history of incompatible and proprietary protocols which were well known in the industry. Then, in ¶0012, we discussed the open standard X.500 for directory services, and that various directory server protocol extension approaches (e.g. "add-ons") have been taken to provide bridging technologies between X.500 and protocols which are not X.500 compatible. Please also see our ¶¶0087 and 0137, in which we describe our own "extension" to the directory server to allow for compatibility between old directory servers and new directory servers employing our invention. Regarding "converting" data to be LDAP compatible, per se, please see our Figure 4, which is described in ¶0057 as illustrating conversion of dynamic data (e.g. time-varying data) to static data for storage in an LDAP directory. We contend that no art of record shows a standard LDAP directory storing anything other than static data, but if the Examiner disagrees, we respectfully ask for the Examiner to provide any extrinsic evidence or an affidavit of knowledge (37

C.F.R. § 1.104(d)(2)). Otherwise, we believe that dynamic data is inherently incompatible with storage in an LDAP directory.

In response to Applicant's arguments, it is noted that Paragraph [0012] and Figure 4 teaches what has been done in the past as it is labeled prior art. Paragraph [0049] states how corresponding dynamic attributes in an LDAP directory are refreshed and stored.

Referring to Applicant's arguments on page 9 of the Remarks, the Applicant states the following:

"Responsive to... ". Regarding the phrase "responsive to said resolving, converting said obtained attribute value from a first value format to a second value format, ... ", we respectfully point out that the decision block #82 of Figure 8 shows responding to determining that the attribute is "real-time" (e.g. dynamic), then invoking a real-time attribute processor (RTAP). Please note that Figure 5 shows the RTAP getting the current value (#62) of the requested real-time value so that it can be returned to the requester (application 2 #23). Please note that ¶0131 states "... the appropriate RTAP (51) process or method, which in turn retrieves or otherwise determines (62) current real-time value of the attribute(s) based upon a dynamic data source (54). These real-time values then are returned (34") to the LDAP server and the requesting client (23) as if it were a normal result from a static attribute return. "

The examiner agrees that paragraph [0131] states that the RTAP method retrieves the real-time value of the dynamic data source. As is also stated in paragraph

[0086], "The function currentTemp.so in our prototype actually accesses real-time data from the online resource "weather.com," parses the data, and returns the value "82F" to the LDAP directory server which then combines that information with the other static information from the LDAP directory, and passes it back to the requesting client."

Paragraph [0087] states that the value was never stored or retrieved from the LDAP directory. Therefore, the Specification fails to teach that Applicant's invention converts the retrieved value. The Specification only teaches that the value had to be converted in the prior art when it was stored in the directory.

Referring to Applicant's arguments on pages 10-11 of the Remarks, the Applicant states the following:

Regarding the rejections over newly-cited Robb in combination with Sanchez and Patel, we respectfully disagree that Robb teaches converting the real-time value from a first non-compatible format to a second compatible format. It was argued that Robb teaches our claimed conversion from a first format (now recited as a directory access protocol incompatible real-time attribute) to a second format (now recited as a directory access protocol compatible static attribute). Please note that we have amended the claims slightly to clarify that the real-time attribute value is originally incompatible with a directory access protocol (corresponding to a "first format"), and that it is converted to a static attribute compatible with a directory access protocol (corresponding to a "second format").

As stated above, the Examiner fails to find support for the limitation within the specification.

10. The novelty of the invention appears to be centered around newly added claims 29-34 in conjunction with paragraphs [0068]-[0076]. It is suggested that the Applicant incorporate this subject matter into the independent claims.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit 2167

/Kimberly Lovel/
Examiner
Art Unit 2167

21 November 2009
/KL/